**MAINTENANCE TECHNICAL SUPPORT CENTER / MAINTENANCE POLICIES & PROGRAMS ENGINEERING / UNITED STATES POSTAL SERVICE**

# maintenance management order

**SUBJECT:** PM Guidelines for Belt Driven Sack Induction Stations (BDSIS)

**DATE:** July 30, 1998

**NO:** MMO-058-98

**TO:** Manager Maintenance BDSIS Sites

**FILE CODE:** Y

dewa:MM9422AF

| Online Change Record | | |
|---|---|---|
| **Change #** | **Date** | **Description of Change** |
| 1 | 4/26/2022 | Attachment 2, corrected skill level 4, no longer in use, to level 7. |

This Maintenance Management Order (MMO) provides Preventive Maintenance (PM) guidelines for Belt Driven Induction Stations (BDSIS) and supersedes MMO-060-93.

The minimum maintenance skill level to perform each task on the various checklists is included in the Minimum Skill Level column. This does not preclude higher level employees from performing any of this work.

**WARNING**

**Various products which require Material Safety Data Sheets (MSDS) may be utilized during the performance of the procedures in this bulletin. Ensure the current MSDS for each product used is on file and available by all employees. When reordering such a product, it is suggested that a current MSDS be requested.**

The attached master checklist provides tasks to be performed at periodic intervals (as noted in the frequency column), the time required per task, and the minimum skill level for each task.

The workhours represented in this MMO reflect the maximum workhours required to maintain the equipment. Given local conditions, management may modify task frequencies.

For questions or comments concerning this bulletin contact the MTSC HelpDesk, either online at **MTSC**>**HELPDESK**>**Create/Update Tickets** or call (800) 366-4123.

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Manager
Maintenance Technical Support Center
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Attachments:
1. Summary--Initial Workload Estimate of BDSIS Maintenance Hours
2. BDSIS Master Checklist

# ATTACHMENT 1

**-SUMMARY-**

**REVISED WORKLOAD ESTIMATE**

**FOR**

**BELT DRIVEN SACK INDUCTION STATIONS (BDSIS)**

| Routine Servicing (hrs/yr) | Repair* (hrs/yr) | Total Servicing & Repair Time (hrs/yr) | Nonproductive Time ** (hrs/yr) | Total Servicing Per Machine (hrs/yr) |
|---|---|---|---|---|
| 8.0 | 2.4 | 10.4 | 1.1 | 11.5 |

* Repair estimates based on 30% of servicing.
** Based on 10% of total servicing and repair.

## TIME TOTALS

| | |
|---|---|
| Monthly Time Total: | 0.4 Hrs. *** |
| Quarterly Time Total: | 0.2 Hrs. *** |
| Semiannual Time Total: | 0.8 Hrs. *** |
| Annual Time Total: | 0.4 Hrs. *** |

**NOTE**

The time shown does not allow for multiple assemblies on any equipment. Should multiple assemblies exist, the time must be modified at the local level to account for those occurrences. Other unique site conditions that requires additional time are to be addressed at the local level.

*** These times are provided for data entry for the MARS System.

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# ATTACHMENT 2

## BDSIS MASTER CHECKLIST

03-IDUCT-BA-001-M

The "Part or Component" column for each step on the Master Checklist provides a "Frequency Code" designation followed by a letter or series of letters. These letters correspond to the frequency codes as published in MS-63 and specify the frequency for which that instruction (step) must be performed. These frequency codes are in compliance with NMICS superseding route structure. The possible frequencies and their codes are given in the table below:

**Table 2-1. MS-63 (NMICS) Frequency-Codes**

| CODE | FREQUENCY | DESCRIPTION |
|---|---|---|
| A | ANNUAL | Once every 13 APs. |
| B | BI-WEEKLY | Once every 2 weeks |
| C | BI-MONTHLY | Once every 2 APs. |
| D | DAILY | Once a day; 7 days a week. |
| E | DAILY | Once a day; 6 days a week. |
| F | DAILY | Once a day; 5 days a week. |
| G | DAILY | Once a day; 4 days a week. |
| H | DAILY | Once a day; 3 days a week. |
| J | SEMI-WEEKLY | 2 days a week. |
| K | BI-ANNUAL | Once every 2 years. |
| L | TRI-ANNUAL | Once every 3 years. |
| M | MONTHLY | Once every AP. |
| N | QUAD-ANNUAL | Once every 4 years. |
| P | QUINT-ANNUAL | Once every 5 years. |
| Q | QUARTERLY | 4 times every 13 APs. |
| S | SEMI-ANNUAL | Twice every 13 AP. |
| T | TOURLY | 3 times a day; 7 days a week. |
| U | TOURLY | Twice a day; 7 days a week. |
| V | TOURLY | 3 times a day; 6 days a week. |
| W | WEEKLY | Once a week. |
| X | TOURLY | Twice a day; 6 days a week. |
| Y | TOURLY | 3 times a day; 5 days a week. |
| Z | TOURLY | Twice a day; 5 days a week. |

| U.S. Postal Service<br>**Maintenance Checklist** | IDENTIFICATION | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Work Code | Equipment Acronym | | | | | | Class Code | | Number | | | Type |
| | 0 | 3 | I | D | U | C | T | B | A | 0 | 0 | 1 | M |
| Equipment Nomenclature<br>**BELT DRIVEN SACK INDUCTION STATIONS (BDSIS)** | Equipment Model | | | | | Bulletin Filename<br>**MM9422AE** | | | | Frequency<br>**ALL** | | | |

| Part or Component | Item No. | Task Statement and Instruction (Comply with all current safety precautions) | Est. Time Req'd | Min. Skill Level |
|---|---|---|---|---|
| SAFETY STATEMENT<br><br>Frequency Code:<br>--M-Q-S-A- | 1. | **COMPLY WITH ALL SAFETY PRECAUTIONS. - Disconnect power and activate lockouts as appropriate while working on this equipment. Where air pressure is required for cleaning, use a low air pressure (30 psi or less) air source. Eye protection (goggles or face shield) must be used when utilizing compressed air for cleaning. Check to ensure all employees are clear of the machine. Report safety deficiencies to your supervisor immediately upon detection.** | 3 min | All |
| SYSTEM<br><br>Frequency Code:<br>--M-Q-S-A- | 2. | **CHECK FOR MAIL. -** Look for loose mail while performing all activities. | 2.5 min | 7 |
| | | **WARNING**<br><br>**Be cautious when working around or on equipment when power has been applied.** | | |
| BDSIS<br><br>Frequency Code:<br>--M-Q-S-A- | 3. | **TEST BDSIS OPERATION:** - Test BDSIS operation as follows:<br>1. With sorter running under computer control, key/induct 10 sacks.<br>2. Verify position on sorter tray.<br>3. During this test, when cleated belt is cycling:<br>• Check belt for quiet operation<br>• Proper tracking/tension<br>• Belt position<br>• Abnormal vibration. | 5 min | 7 |

| U.S. Postal Service<br>**Maintenance Checklist** | IDENTIFICATION | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Work Code | | Equipment Acronym | | | | | Class Code | | Number | | | Type |
| | 0 | 3 | I | D | U | C | T | B | A | 0 | 0 | 1 | M |
| Equipment Nomenclature<br>**BELT DRIVEN SACK INDUCTION STATIONS (BDSIS)** | Equipment Model | | | | | Bulletin Filename<br>**MM9422AE** | | | | Frequency<br>**ALL** | | | |

| Part or Component | Item No. | Task Statement and Instruction (Comply with all current safety precautions) | Est. Time Req'd | Min. Skill Level |
|---|---|---|---|---|
| SYSTEM<br><br>Frequency Code:<br>--M-Q-S-A- | 4. | **POWER DOWN AND LOCKOUT POWER. -** Power down the equipment and lockout its electrical power as prescribed by the procedures contained in, or locally developed in accordance with, the current Maintenance Management Order (MMO) providing lockout/restore procedures. | 1 min | All |
| REGULATOR FILTER<br><br>Frequency Code:<br>--M-Q-S-A- | 5. | **DRAIN AIR FILTER CONDENSATE: -** Drain condensate from air filter. Valve is located at bottom of regulator. Check for leaks. | 2 min | 7 |
| CLUTCH BRAKE<br><br>Frequency Code:<br>--M-Q-S--- | 6. | **CHECK AND FILL CLUTCH BRAKE FLUID: -** Check and fill clutch brake fluid as follows:<br>1. Check fluid level in clutch brake.<br>2. Fill as required, using ATF 210.<br>3. Wipe dry any fluid drippage or accumulation. | 5 min | 7 |
| Frequency Code:<br>--------A- | 7. | **SERVICE CLUTCH BRAKE: -** Service clutch brake as follows:<br>1. Wrench test all clutch brake mounting bolts for tightness.<br>2. Remove dust, oil, and foreign material from exterior of housing.<br>3. Check clutch brake belt for wear, proper tension, and alignment.<br>4. Drain and refill to proper level. Use ATF 210.<br>5. Wipe dry any fluid drippage or accumulation. | 20 min | 7 |

| U.S. Postal Service<br>**Maintenance Checklist** | IDENTIFICATION | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Work Code | | Equipment Acronym | | | | | Class Code | | Number | | | Type |
| | 0 | 3 | I | D | U | C | T | B | A | 0 | 0 | 1 | M |
| Equipment Nomenclature<br>**BELT DRIVEN SACK INDUCTION STATIONS (BDSIS)** | Equipment Model | | | | | Bulletin Filename<br>**MM9422AE** | | | | Frequency<br>**ALL** | | | |

| Part or Component | Item No. | Task Statement and Instruction (Comply with all current safety precautions) | Est. Time Req'd | Min. Skill Level |
|---|---|---|---|---|
| CLUTCH BRAKE (Cont.)<br><br>Frequency Code:<br>------A- | 8. | **LUBRICATE BEARINGS: -** Wipe bearings clean and lubricate four (4) bearings. Wipe off excess lubricant. Use Lubricant GR-2. | 3 min | 7 |
| STRUCTURE<br><br>Frequency Code:<br>----------S-A- | 9. | **CLEAN AND CHECK STRUCTURE: -** Clean and check structure as follows:<br><br>**WARNING**<br><br>**Eye protection (goggles or face shield) must be worn when using compressed air for cleaning.**<br><br>1. Remove accumulated dust, lubricant, and foreign material from side members, motor supports, and other structural and supporting members.<br><br>2. Wipe, brush, vacuum, or blow with low pressure air as appropriate.<br><br>3. Check for loose connecting bolts, anchor bolts, and hanger rods.<br><br>4. Check for broken welds. | 18 min | 7 |
| MOTOR<br><br>Frequency Code:<br>--Q-S-A- | 10. | **CLEAN AND CHECK MOTOR: -** Clean and check motor as follows:<br><br>1. Clean motor using low pressure air or vacuum.<br><br>2. Check motor for damage.<br><br>3. Check mounting bolts and screws on motor pulley to ensure they are secure.<br><br>4. Check motor drive belt for wear, proper tension, and alignment. | 7 min | 7 |

| U.S. Postal Service<br>**Maintenance Checklist** | IDENTIFICATION | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Work Code | | Equipment Acronym | | | | | Class Code | | Number | | | Type |
| | 0 | 3 | I | D | U | C | T | B | A | 0 | 0 | 1 | M |
| Equipment Nomenclature<br>**BELT DRIVEN SACK INDUCTION STATIONS (BDSIS)** | Equipment Model | | | | | Bulletin Filename<br>**MM9422AE** | | | | Frequency<br>**ALL** | | | |

| Part or Component | Item No. | Task Statement and Instruction (Comply with all current safety precautions) | Est. Time Req'd | Min. Skill Level |
|---|---|---|---|---|
| | | **WARNING**<br><br>**Eye protection (goggles or face shield) must be worn when using compressed air for cleaning.** | | |
| EC1 MOTOR STARTER PANEL<br><br>Frequency Code:<br>----------S-A- | 11. | **CHECK AND CLEAN MOTOR STARTER PANEL: -** Check and clean motor starter panel as follows:<br>1. Using low pressure air or vacuum, clean interior of panel.<br>2. Wipe exterior of panel. | 10 min | 7 |
| Frequency Code:<br>----------S-A- | 12. | **CHECK PANEL AND CORRECT DEFICIENCIES: -** Inspect panel and correct any deficiencies as follows:<br>1. Check panel, panel switches, and lamps for damage; and for loose components and terminals, tighten if necessary.<br>2. Check panel interior, fuses, connections, and relay and motor starter contacts for evidence of damage, arcing, and burning. | 10 min | 5 |
| CONDUIT<br><br>Frequency Code:<br>----------S-A- | 13. | **CHECK CONDUIT AND WIRING: -** Check conduit and wiring as follows:<br>1. Check for damage to conduit and wiring between control panel and motor panels, limit switches, magnetic pickup, photocells, and other control devices associated with this group panel.<br>2. Look for conduit being used for handhold or steps.<br>3. Check wiring in vicinity of panel for damage.<br>4. Check conduit couplings for separation. | 5 min | 5 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Work Code | | Equipment Acronym | | | | | Class Code | | Number | | | Type |
| | 0 | 3 | I | D | U | C | T | B | A | 0 | 0 | 1 | M |
| Equipment Nomenclature<br>**BELT DRIVEN SACK INDUCTION STATIONS (BDSIS)** | Equipment Model | | | | | Bulletin Filename<br>**MM9422AE** | | | | Frequency<br>**ALL** | | | |

| Part or Component | Item No. | Task Statement and Instruction (Comply with all current safety precautions) | Est. Time Req'd | Min. Skill Level |
|---|---|---|---|---|
| CLEAN-UP<br><br>Frequency Code:<br>--M-Q-S-A- | 14. | **CLEAN-UP. -** Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to your supervisor. | 2 min | All |
| | | **WARNING**<br><br>**Be cautious when working around or on equipment when power has been applied.** | | |
| BDSIS<br><br>Frequency Code:<br>--M-Q-S-A- | 15. | **RESTORE EQUIPMENT TO SERVICE. -** Restore equipment to service as prescribed by the procedures contained in, or locally developed in accordance with, the current Maintenance Management Order (MMO) providing lockout/restore procedures. | 1 min | All |